

# Q.PEAK DUO XL-G11S SERIES



580-600 Wp | 156 Cells  
21.5 % Maximum Module Efficiency

MODEL Q.PEAK DUO XL-G11S.3 / BFG



## Bifacial energy yield gain of up to 21%

Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.



## Low electricity generation costs

Q.ANTUM DUO technology with optimized module layout to boost module power and improve LCOE.



## A reliable investment

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty<sup>1</sup>.



## Enduring high performance

Long-term yield security with Anti LID and Anti PID Technology<sup>2</sup>, Hot-Spot Protect.



## Frame for versatile mounting options

High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).



## Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behavior.

<sup>1</sup> See data sheet on rear for further information.

<sup>2</sup> APT test conditions according to IEC/TS 62804-1:2015 method B (-1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)

The ideal solution for:



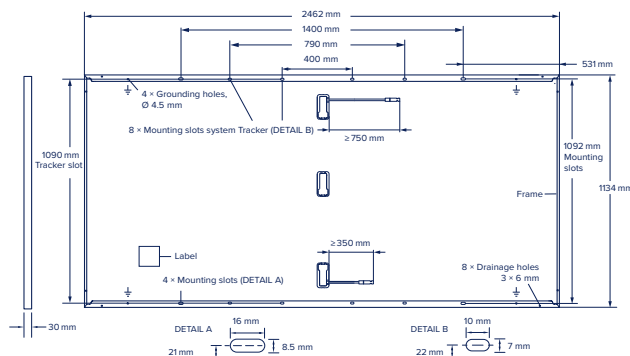
Ground-mounted solar power plants



# Q.PEAK DUO XL-G11S SERIES

## Mechanical Specification

Format	2462 mm × 1134 mm × 30 mm (including frame)
Weight	34.8 kg
Front Cover	2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	2 mm semi-tempered glass
Frame	Anodised aluminium
Cell	6 × 26 monocrystalline Q.ANTUM solar half cells
Junction box	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	4 mm <sup>2</sup> Solar cable; (+) ≥ 750 mm, (-) ≥ 350 mm
Connector	Stäubli MC4-Evo2, Hanwha Q CELLS HQC4; IP68



## Electrical Characteristics

POWER CLASS		580	585	590	595	600						
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W/-0 W)												
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	580	BSTC* 634.4	585	BSTC* 639.9	590	BSTC* 645.4	595	BSTC* 650.8	600	BSTC* 656.3
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	13.69	14.99	13.72	15.01	13.74	15.04	13.77	15.07	13.80	15.10
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	53.55	53.74	53.57	53.76	53.60	53.79	53.63	53.82	53.66	53.85
	Current at MPP	$I_{MPP}$ [A]	13.03	14.25	13.07	14.30	13.12	14.36	13.17	14.41	13.22	14.46
	Voltage at MPP	$V_{MPP}$ [V]	44.53	44.52	44.75	44.74	44.96	44.95	45.18	45.17	45.39	45.38
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 20.8		≥ 21.0		≥ 21.1		≥ 21.3		≥ 21.5	

Bifaciality of  $P_{MPP}$  and  $I_{SC}$  70% ± 5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

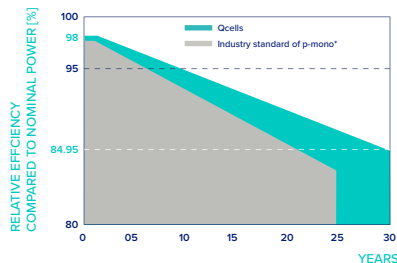
<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ,  $V_{OC}$  ± 5% at STC; 1000 W/m<sup>2</sup>; \*at BSTC: 1000 W/m<sup>2</sup> +  $\varphi$  × 135 W/m<sup>2</sup>,  $\varphi$  = 70%, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT<sup>2w</sup>

Minimum	Power at MPP	$P_{MPP}$ [W]	436.7	440.5	444.2	448.0	451.8
	Short Circuit Current	$I_{SC}$ [A]	11.03	11.05	11.07	11.09	11.11
	Open Circuit Voltage	$V_{OC}$ [V]	50.64	50.67	50.69	50.72	50.75
	Current at MPP	$I_{MPP}$ [A]	10.25	10.30	10.34	10.38	10.42
	Voltage at MPP	$V_{MPP}$ [V]	42.60	42.79	42.97	43.15	43.34

<sup>2</sup>800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5

### Qcells PERFORMANCE WARRANTY

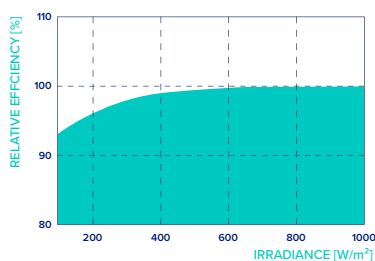


At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.95% of nominal power up to 10 years. At least 84.95% of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organisation of your respective country.

\*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

### PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m<sup>2</sup>).

### TEMPERATURE COEFFICIENTS

Temperature Coefficient of $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.27
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/K]	-0.34	Nominal Module Operating Temperature	NMOT [°C]	42 ± 3

## Properties for System Design

Maximum System Voltage	$V_{SYS}$ [V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	$I_R$ [A]	25	Fire Rating based on ANSI/UL 61730	C/TYP E 29 <sup>4</sup>
Max. Design Load, Push/Pull <sup>3</sup>	[Pa]	3600/1600	Permitted Module Temperature on Continuous Duty	-40 °C - +85 °C
Max. Test Load, Push/Pull <sup>3</sup>	[Pa]	5400/2400		

<sup>3</sup> See Installation Manual

<sup>4</sup> New Type is similar to Type 3 but with metallic frame

## Qualifications and Certificates

Quality Controlled PV -  
TÜV Rheinland;  
IEC 61215:2016;  
IEC 61730:2016.  
This data sheet complies  
with DIN EN 50380.



Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

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